

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 10:49 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 749 Const Calendar Day: 207 Date: 28-Dec-2012 Friday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Continuous

Shift Hours: 07:00 am 03:30 pm Break: 00:30 Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex

Approved Date:

Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather****Temperature** 7 AM 50 - 60 12 PM 50 - 60 4PM 50 - 60**Precipitation** 0.30"**Condition** Light rain in AM to mostly overcast and windyWorking Day ☐ If no, explain:**Diary:**

Dispute

Work description.

- Took local measurements of the two E-Line Hinge A pipe beams from 8:30am to 9:45am. The ambient temperature wasn't taken however the steel temperature was 44F on the top deck at EPP125CL under overcast skies. This indicates that the SAS and Skyway have likely not moved even though the sunrise is around 7:20am. A laser level was used from the top of the pipe where the stiffeners in the pipe were measured in relation to west diaphragm A stiffener plate. The center of diaphragm A was measured in the access opening adjacent to the Hinge A pipe beam.

The following are the measurements taken on the E-Line Hinge A pipe beam longitudinal position:

Measurement near Diaphragm A	South Pipe Beam	North Pipe Beam
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Laser line to east pipe stiffener east face:	1437	1356
Laser line to west pipe stiffener west face:	836	776
Center of pipe stiffeners - 25mm offset laser line:	$(1437 - 836) / 2 + 836 - 25 = 1112$	
	$(1356 - 776) / 2 + 776 - 25 = 1041$	
West face of west diaphragm A plate to laser line:	609	526
Diaphragm A opening west/east faces:	1042	1036
Center of Diaphragm A opening - 25mm offset laser line:	$609 + (1042 / 2) - 25 = 1105$	
	$526 + (1036 / 2) - 25 = 1019$	
Center of Pipe Beam to be aligned over diaphragm A needs to go:	7 - West	22 - West

From 10:00am to 11:10am measurements were taken with ABF engineer Andre Makaranian to agree on the longitudinal location of the E-Line Hinge A pipe beams. His measurements were done from the



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the rest of the day. See Abbas Iranmanesh's diary for more details of this operation as he was responsible for that inspection.

Myself and Smith Emery technician Brien Connelly proceeded to test the handrope clamp bolts after the ironworkers were approximately 2/3s complete. Thirteen of the bolts failed the torque wrench test from panel points EPP46 progressing downhill to EPP80. After the failed bolts were identified with a blue marker Ethan and Jose went down the span with Brien and myself and applied the proper torque to the bolts.

After all of the handrope clamp bolts were properly torqued and tested I verbally informed ABF engineer Ankur Singh that the torque applied to the bolts from EPP46 to EPP100 were acceptable. Also it should be noted that as the ironworkers were torquing the handrope clamp bolts there was a slight twist in the handrope cables. Ethan removed the twist by turning the turnbuckles. The amount of turns on the turnbuckle and the sections of clamped handrope likely held the tension force of 45,000kN. However the handrope tensions should be checked again for acceptance.

Attachment



Steel temperature after my independent QA measurements were taken on the Hinge A E-Line pipe beams on the top deck plate at EPP125CL.



Measurement from the west face of the west diaphragm A stiffener plate near the South pipe beam using the laser level attached to the pipe.